

## Patent Abstracts of Japan

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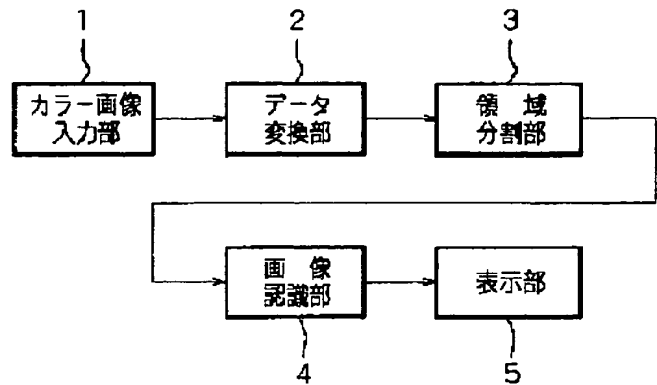
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TITLE : TRAVELING ENVIRONMENT  
RECOGNIZER FOR TRAVELING  
VEHICLE



ABSTRACT : PURPOSE: To provide a traveling environment recognizer which can accurately recognize the traveling lane of a vehicle, the preceding vehicles on the lane, the traffic control signs, etc.

CONSTITUTION: A data converting part 2 projects the picture elements of a color image supplied from a color input part 1 of a color image pickup device which is mounted on a traveling vehicle into a three-dimensional space different from that which defines the R(red), G(green) and B(blue) values as three axes based on these three values. Then the three-dimensional space where each picture element is projected is divided into plural areas by an dividing part 3. Then the part 3 defines the center value of each divided area as the picture element value that belongs to the corresponding divided area and divides the color image into plural area based on each picture element value calculated by the part 2. An image recognizing part 4 recognizes a traveling lane and the preceding vehicles and the traffic control signs existing on the lane for each divided area in response to the actual views. The objects recognized by the part 4 are shown at a display part 5.

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